DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-026824 Address: 333 Burma Road **Date Inspected:** 06-Dec-2011

City: Oakland, CA 94607

Project Name: SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: Listed below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

34-0006 **Bridge No: Component:** S.A.S. components

Summary of Items Observed:

The Quality Assurance Inspector (QAI), Scott Croff, was present at the Self Anchored Span (SAS) job site to observe the scheduled fabrication and welding of components for the SFOBB project. The following observations were made:

- 1) OBG Deck welding at 14W
- 2) OBG Deck Hole prep / inspection at 14W
- 3) OBG field splice welding at 13W/14W H
- 4) OBG field splice inspection and repairs at 13W/14W I

1) The QAI observed ABF personnel making complete joint penetration (CJP) welds at 14W, panel point (PP) 125 line W3.7. The QAI noted that this is a deck vent hole being closed. The QAI noted that ABF welder Salvador Sandoval, ID 2202, is using Shielded Metal Arc Welding (SMAW) in the flat (1G) position. The QAI also noted that the Quality Control Inspector (QCI) Salvador Merino is monitoring this welding. The QAI spoke with the QCI and confirmed that the weld being made has the contract requirements of a Seismic Performance Critical Member (SPCM). The QAI verified that the preheat and interpass temperatures were conforming to the welding procedure specification (WPS) ABF-WPS-D15-1050A-CU. The QCI informed the QAI that the welding parameters were conforming to the WPS. The QAI made random observations of the work in progress during this shift. The QAI noted fill passes are being made. See the attached photo. The work was in progress until the end of the shift and was not completed. The QAI noted that 1 deck hole (lifting lug hole) remains to be fit-up at this time.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

- 2) The QAI also noted that personnel are working on deck hole cover welds on OBG 14W. The QAI noted that Mike Jiminez, ID 4671, is back gouging lifting lug hole welds at PP 125 line W3 and other deck vent hole welds are being ground smooth in preparation for inspection. The QAI witnessed the QCI Pat Swain conducting Ultrasonic Testing (UT) of the completed SPCM CJP welds. The QAI also witnessed the QCI Salvador Merino conducting Magnetic Particle Testing (MT) of the completed SPCM CJP welds. See the attached photo. The QAI was informed by the QCI Pat Swain that rejectable indications were identified on 1 of the vent holes examined so far. The QAI noted that this work was in progress and not completed.
- 3) The QAI observed ABF personnel making CJP welds at OBG field splice 13W/14W location H. The QAI noted that ABF welder Richard Garcia, ID 5892, is using Gas Shielded Flux Cored Arc Welding (FCAW-G) in the overhead (4G) position. The QAI also noted that the QCI William Sherwood is monitoring this welding. The QAI spoke with the QCI and confirmed that the weld being made has the contract requirements of a SPCM weld. The QAI verified that the preheat and interpass temperatures were conforming to ABF-WPS-D15-3110-4. The QCI informed the QAI that the welding parameters were conforming to the WPS. The QAI made random observations of the work in progress during this shift. The QAI noted back welding (fill passes) are being made. The QAI noted that the work appeared to be generally conforming to the contract requirements. See the attached photo.
- 4) The QAI observed the QCIs John Pagliero and Jesus Cayabyab conducting UT of completed OBG field splice weld 13W/14W location I. The QAI witnessed the QCI scanning the weld and identifying rejectable and recordable indications. The QAI was informed that there were multiple repairs that have been identified. See the attached photo. The QAI was informed that repairs will begin and that ABF welder Fred Kaddu, ID 2188, has been tasked with performing the repairs. The QAI made observations and noted that electrical induction heating blankets have been positioned in the area where repairs will begin. The QAI later noted that carbon arc gouging of the identified rejectable indications has begun. The QAI was not able to make further observations of this work.





WELDING INSPECTION REPORT

(Continued Page 3 of 3)





Summary of Conversations:

The QAI had general conversations with ABF and Caltrans personnel during this shift. The QAI relayed the current weld / field splice status to the QAI Danny Reyes. The QAI relayed the general observations and status of work to the QAI Lead Bill Levell. Except as described above, there were no other notable conversations or observations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Croff,Scott	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer